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MARL DEPOSITS IN BONAVENTURE, NORTH OF BAY CHALEUR, QUEBEC, CANADA, AND IN HOULTON, MAINE

BY OLOF O. NYLANDER

Since the opening of the road from St. Leonards across the north of New Brunswick to Bay Chaleur, I have been able to make a trip there nearly every summer; sometimes even two. My chief object has been to check up on the many publications related to the fossils and to collect specimens for my collection, and to take photographs of the most important places.

On October 19th, 1940, we stopped at a place along the road to examine a marl deposit that I had noticed in passing by there several times before. This was on a farm belonging to a Mr. Leazari Henry, in east Bonaventure, north of Bay Chaleur. The day was cold and windy, and our time limited, so I could not spend the time to give the subject all the attention it should have had. The marl deposit is 12 feet thick, (overlaid by two feet of peat) which has been worked for 17 years. The marl is sold to farmers for 50¢ a yard and is used for improving the land. The marl is largely deposited by algae with some remains of fresh water shells. In the top layer of the marl are many large fresh water snails, *Lymnaea stagnalis* L., in a good state of preservation.

Fossaria umbilicata, C. B. Adams, rather scarce.

Helisoma trivolvis Say, 7 specimens.

Gyraulus parvus Say, common.

Sphaerium sulcatum Lam, 1 partly preserved.

Pisidium, 1 large specimen of a species not seen before.

This deposit is remarkable because *L. stagnalis* is abundant in the top layer. To my knowledge it has not been found living in

any body of water in north-eastern America where all the other species are of common occurrence.

On August 16, 1933, near the Maine No. 1 highway, on Mr. Edward C. Currier's farm in the northern part of Houlton, I discovered a peat bog of about 4 feet in thickness. It was underlaid by a marl bed about a foot thick, and in this marl deposit is a lot of fresh water shells, all of which are of a large size for their species. *Lymnaea stagnalis* Linné is found in the top of the marl and must have been in abundance, as several specimens were there, all of a good size, but so brittle that only a few good specimens were secured.

The following is a list of the 14 species of shells observed:

<i>Valvata lewisi</i> Currier	<i>Gyraulus parvus</i> Say
<i>Physa heterostropha</i> Say	<i>Sphaerium sulcatum</i> Lamarek
<i>Lymnaea stagnalis</i> Linné	<i>Sphaerium rhomboideum</i> Say
<i>Fossaria obrussa decampi</i> Streng	<i>Musculum securis</i> Prime
<i>Helisoma trivolvis</i> Say	<i>Pisidium variabile</i> Prime
<i>Helisoma anceps</i> Menke	<i>Pisidium ventricosum</i> Prime
<i>Helisoma companulatum</i> Say	<i>Pisidium contortum</i> Prime

A NEW TYPE OF FRESH WATER CLAM FROM BRITISH GUIANA

BY J. P. E. MORRISON¹

The writer was fortunate enough to be a student during the 1925 summer session at the Kartabo Zoological laboratory of the University of Pittsburgh. Each student's work consisted principally of ecological observations and collections of animals of the group in which he was most interested. My own knowledge of mollusks was considerably broadened and increased by these first-hand studies in Tropical Animal Ecology, made possible largely through the efforts of my professors at the University of Chicago, Dr. W. C. Allee and Dr. H. C. Cowles.

Kartabo Point, widely publicized by Wm. Beebe in his books on the jungle life of British Guiana, proved to be relatively barren of Mollusca. Lying as it does in the second-growth jungle area of formerly extensive plantation clearings in the Guiana lowlands, the environment is much different from that of the

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